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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,444	01/06/2004	Masahiro Kubota	M1071.1886	2577

7590 06/23/2005

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EXAMINER

CHU, JOHN S Y

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/751,444

Applicant(s)

KUBOTA, MASAHIRO

Examiner

John S. Chu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) 9-20 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to the application filed January 6, 2004 and the election received April 4, 2005.

1. Applicant's election with traverse of the invention elected in the reply filed on April 4, 2005 is acknowledged. The traversal is on the ground(s) that the asserted use in a hologram recording or making a plasma display is a gross speculation. This is not found persuasive because a particle containing composition are known to make the plasma screens, and in addition the composition as recited can be used to make a powdered molded structure thus providing a materially different process which would require extensive consideration.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

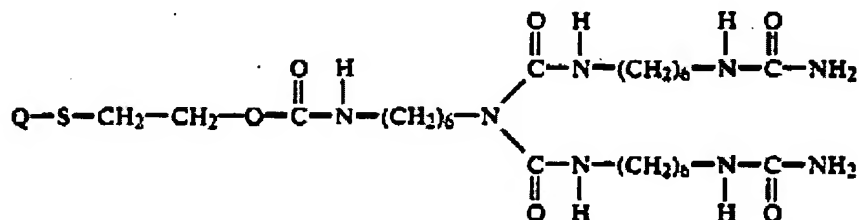
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of NEBE et al (5,032,490) OGISO et al (6,727,034 and HAYASHI.

The claimed invention is drawn to the following:

NEBE et al '490 is cited to disclose a photosensitive copper conductive composition wherein copper particles of less than $0.5\text{ }\mu\text{m}$ - $10\text{ }\mu\text{m}$ as seen in column 3, lines 1-15. The composition further comprises an inorganic binder, an organic polymeric binder, a photoinitiator system and a dispersant, a stabilizer and an organic medium. The dispersant is more specifically defined to be a A-B block copolymer as described in column 7, lines 1-68 wherein Dispersant I is seen to be the following:



wherein this can be seen to be a polycarboxylic-based agent as seen by the carbonyloxy group in the middle of the structure.

NEBE et al lacks an explicitly disclosed example having the claimed molecular weight as recited in claim 1.

OGISO et al is cited to disclose a photosensitive composition comprising finely divided powder wherein a dispersant disclosed to be used in the composition to disperse the powder uniformly in the composition. The dispersant is disclosed among other anionic surfactants to include polycarboxylic acid dispersants as useful to aid in providing a uniformly coated layer, see column 13, lines 28-32.

OGISO et al lacks the recited molecular weight of the dispersant.

HAYASHI (2002/0033565 A1) discloses the production of powder-molded body comprising a slurry containing a powder of a ceramic and/or metal in a dispersion medium. Applicants are directed to page 5, subparagraph [0088] wherein a polymaleic acid copolymer A with a tradename of Flowlen G700 (produced by Kyoeisha Chemical Co. Ltd.) is disclosed. Thus the claimed polycarboxylic acid-based dispersant is disclosed and known in the art as a dispersing agent for composition comprising particles or powdered components. The dispersant serves to provide a uniform dispersion of particles in the layer.

HAYASHI lacks a photosensitive composition.

It would have been *prima facie* obvious to one of ordinary skill in the art of coating composition to use known dispersing agents such as Flowlen G700 as a dispersing agent in the composition of NEBE et al '490 in place of his dispersant component and reasonably expect same or similar results with respect to having a photosensitive aqueous developable composition with copper conductors that is also excellent in photospeed and line resolution.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. NEBE et al 5,047,313 and 5,032,478 are cited of interest as being cumulative to the NEBE et al '490 reference used above. Theses references all disclose a photosensitive aqueous

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developable composition having metal particles, organic binder, inorganic binders and a dispersant to aid in the uniform coating of the layer.

TOWATA et al is cited to disclose a photosensitive paste with metal particles and organic binders. The reference lacks a surfactant/dispersant as claimed.

KUBOTA is cited to the same inventive entity and cannot be used as an art rejection under 35 U.S.C. 102(e) because the inventive entity is the same. Likewise the publication date prevents it from being used in a statutory bar situation. In addition no double patenting rejection exists wherein no dispersant as recited is claimed.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Chu whose telephone number is (571) 272-1329. The examiner can normally be reached on Monday - Friday from 9:30 am to 6:00 pm.

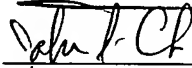
The fax phone number for the USPTO is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John S. Chu
Primary Examiner, Group 1700

J.Chu

June 14, 2005